

<b>Focussed Priority 1</b>		<b>All pupils make at least expected in year progress for mathematics (YR to Y6)</b>			
What will be different for children (emphasise learning & achievement)?  Ofsted category cross reference: 01 02 04 05  Ofsted Areas requiring improvement: L&M 1 and 2, TLA&O 2 and 4, EY1		Children will be aware of a focus in their classroom to improve the confidence and achievement of all children in mathematics. Children will be given opportunities to demonstrate their understanding and to consolidate skills. Children will be able to use precise mathematical vocabulary to explain their thinking. Children will be able to demonstrate effective calculation strategies for all operations of number, according to their age and stage. Children will make demonstrable progress in learning their tables and division facts, parents will be encouraged to support this learning at home. All children will make expected progress taking into account their starting points. Some will make accelerated progress and where expected progress is not achieved interventions will be in place to support children to catch up.			
<b>Targets</b>			<b>Success criteria</b>		
All pupils will make at least 6 points progress (Symphony Assessment system). Some pupils will make 7 points progress (Symphony Assessment system). Pupils will be selected for accelerated progress through teacher appraisal.			<ul style="list-style-type: none"> <li>🎯 Children will be able to talk about their mathematics, identifying their strengths and what they need to improve</li> <li>🎯 Children will all make expected progress in mathematics this year, some will make more than expected</li> <li>🎯 Children will demonstrate the use of effective calculation strategies for all operations of number, according to their age and stage</li> <li>🎯 Children who are falling behind will be targeted for intervention</li> <li>🎯 Children will be able to demonstrate their understanding and reasoning through talk, use of visual equipment and apparatus and problem solving ability</li> <li>🎯 Children will be able to recall timestables and division facts appropriate for their age and stage</li> <li>🎯 Tracking of vulnerable groups ensures interventions can be timely and effective in accelerating rates of progress (PPG, SEND, EAL)</li> </ul>		
<b>Year Group</b>	<b>SAS Baseline attainment July 2017</b>	<b>SAS Target attainment July 2018</b>	<b>December 2017</b>	<b>April 2018</b>	<b>July 2018</b>
<b>1</b>	3.95	10.95	Target 5.95 Achieved 5.85	Target 8.45 Achieved 7.9	Target 10.95 Achieved 10
<b>3</b>	14.79	21.79	Target 16.79 Achieved 16.5	Target 19.29 Achieved 17.95	Target 21.79 Achieved 20.32
<b>4</b>	20.84	27.84	Target 22.84 Achieved 23.00	Target 24.84 Achieved 25.07	Target 27.85 achieved 27.02
<b>5</b>	27.64	34.64	Target 29.64 Achieved 29.53	Target 32.14 Achieved 31.57	Target 34.64 Achieved 33.51
Pupils will be tracked using prior attainment information to ensure progress is maximised. Some Y2 pupils will be targeted to move from EYFS					

emerging to Y2 EXS in line with national average. KS2 pupils will be tracked to ensure they are making expected progress from KS1 outcomes.

	Baseline attainment	Target attainment July 2018	Nov 17	Jan 18	Apr 18	July 18
Y2	2016 EYFS Maths 59 pupils EXP+= 63% GDS= 5%	EXP+= 68%  GDS = 10%	Target = 20%	Target = 40%	Target = 55%	Target = 68%
			24% of pupils are ARE for this point in the year on symphony (14+ points)	37%	53%	Achieved 73%
			Target = 0%	Target = 3%	Target = 6%	Target = 10%
			Achieved 0%	Achieved 0%		Achieved 7%
Y6	KS1 APS starting point used to forecast the % who need to reach EXP+ and GDS. FFT estimates.	EXP+ = 65%  GDS = 10%	Target = 35%	Target = 45%	Target = 55%	Target = 65%
			Achieved 25%*	Achieved 33%	Achieved 49%	52%
			Target = 2%	Target = 5%	Target = 8%	Target = 10%
			Achieved 0%*	Achieved 2%	Achieved 19%	11% (12%)

\*11 children = 25%, 4 more pupils needed to meet target. 1 child only -2 from pass mark. Only 1 child was needed to achieve GDS to meet target.

Reception pupils were baselined following school procedures. Pupils will be given targets for progress in line with VPA expectations:

4 steps – VPA minimum expected progress

5 steps – VPA good progress

6+ steps – VPA rapid progress

	Baseline % attainment October 2017	Target attainment July 2018	December 2017	March 2018	July 2018
YR	22-36 39% 30-50 61%	Targets: 40-60 35% ELG 60% ELG Exc 5%	Targets (achieved) 22-36 20% (27%) 30-50 65% (57%)	Targets: (Achieved) 30-50 35% (Cohort 46.7%, RB 34%)	Targets: 40-60 35% ELG 60% ELG Exc 5% 62% ELG 2%

			40-60 15% <b>(16%)</b>	40-60 65% <b>(Cohort 43.3% RB 66%)</b>	
<p><b><u>Reception March – this data was collected in February, so is ahead of the deadline. Additionally, progress in RA has been affected by staff illness and a change of teacher. This can be seen from the comparison to the data for RA, which is on track and meets interim targets. The year team are confident in making up the slower progress now a new teacher is in place.</u></b></p>					

Key People	Funding & Resources
<p>Linda Embling – Mathematics improvement leader. Jane Wall – Pupil premium champion Sarah Whiteman – Vice principal – EYFS strategic leader. Jo Costanzo – PiXL lead Sally Spencer – Inclusion Manager Hayley Scargill – lead trainer for symphony assessment core subjects</p>	<ul style="list-style-type: none"> <li>• Tackling Tables – times table scheme (£520)</li> <li>• White Rose Maths Hub scheme (free)</li> <li>• Investment in PiXL membership</li> <li>• Quality concrete resources</li> </ul> <p>Budget for mathematics to be agreed and amounts will be added</p>

Actions (and those responsible)	Who monitors?	Who evaluates? *	When	Check Date when completed
Implement Tackling tables scheme for Year 2 to Year 6. Training to be carried out by LE in September, implemented Y2 to Y6	LE	SMT	Sept 2017	
Monitor Tackling Tables outcomes termly and challenge and support class teachers where necessary	LE	SMT	Oct, Dec, Feb, Apr, May, July	
Pupils in vulnerable groups tracked carefully in mathematics and as distinct groups to ensure any issues can be tackled quickly, teachers to be aware of which groups are most vulnerable for their class (PPG, SEND, EAL, other groups as noted in cohort profiles)	HS PPG – JW SEND/EA L – SS	SMT	Oct, Dec, Feb, Apr, May, July	
Implement White Rose scheme of work. Training to be carried out by LE. With additional support for teams in team meeting times when needed	LE	SMT	Sept 2017	
Monitor use of White Rose scheme of work: planning and work scrutiny	LE	SMT	Oct, Dec, Feb, Apr, May, July	
Implement new guidance for vocabulary, carry out training for teaching team	LE	SMT	Sept 2017	
Monitor use of vocabulary guidance: planning, work scrutiny and learning walks	LE	SMT	Oct, Dec, Feb, Apr, May, July	
Training in use of calculation and use of bar model, implement new document	LE	SMT	Sept 2017	
Monitor use of calculation policy and bar model: planning, work scrutiny and learning walks	LE	SMT	Oct, Dec, Feb, Apr, May, July	

Implement White Rose progress tests (arithmetic and reasoning) 3x a year for year 1-5	LE	SMT	Dec Apr July	
Ensure expectations for use of working walls are in place in all classrooms, monitored and feedback given	LE	SMT	Sept Jan Apr	
Implement new assessment system (symphony). Training in September led by HS and follow up training half termly	HS	SMT	Oct, then half termly	
Moderation of mathematics judgements using symphony, internally and with HAT schools	HS	SMT	In line with schedule	
Training in use of Symphony excel to make final termly judgements and analysis of data	HS	SMT	Nov 2017	
Training in use of symphony matrices to select pupils for accelerate pupils target	HS	Appraisers	Mid-year and final reviews	
Identify pupils who are falling behind and target them for interventions. Formally after each data drop, but continuously following any concerns raised through lesson observation, monitoring etc.	LE	DH/EC PW IP JC	3x a year <i>Not all pupils who were targeted made sufficient progress.</i>	
Engage parents with supporting their child's mathematics at home. Trial new reception maths home learning scheme	LE	R leaders	Nov onwards	
Engaging parents with supporting children with arithmetic skills at home (timestables (Y2 to 6) and numbers bonds (Y1) )	LE	Team leaders	Oct onwards	

#### Evaluation:

\*the majority of evaluation for focus priorities will be carried out by the SMT. This will be in the form of presentations to the SMT by improvement leaders - question and answer sessions will take place and follow up with be agreed.

#### December 2017:

Effective use of working walls is supporting children's independence. Vocabulary helps children to articulate their thinking and reasoning.

In a growing number of classrooms challenges displayed provide both extension and challenge to pupil learning.

Models and images support the pupils to make links in their learning and to deepen and secure their understanding.

An increasing number of staff are confident in choosing content for their working walls which links directly to current learning.

The maths lead has carried out joint lessons observations with the head teacher and completed book scrutinies, along with informal support with planning, this has enabled her to have a clear picture of where she needs to target her support for individual members of staff.

The introduction of the White Rose scheme of work for mastery has provided a consistent approach across the school and ensured mathematics is taught in a logical order. It ensures the pitch of lessons is age appropriate and supports teachers in providing challenge and support for all pupils. The maths lead is aware through monitoring which teachers needs additional support to use this new material to best effect.

Tackling tables scheme has been introduced in years 2 to 6. Children are showing high levels of engagement and enjoying learning both multiplication and division facts. There has been a high take up of home packs by

parents with 77 families in year 2-6 having purchased packs to practise with at home. An end of term assessment will enable the maths lead to assess the success of this new system more accurately.

Progress of pupils in mathematics using the symphony assessment system:

Y1	1.97
Y2	2.36
Y3	1.71
Y4	2.16
Y5	1.90
Y6	2.02

(expected range 1.75 to 2.25)

Pupil progress in mathematics for the autumn term has been most rapid in Y2 and Y6. The progress of pupils in Y3 needs further investigation.

### Supporting evidence:

- Working wall and learning walk monitoring feedback
- Summary of maths lesson observations
- Summary of book scrutiny
- Tackling Tables baselines and first assessment outcomes
- Parent engagement with tackling tables

### April 2018

The use of white rose is embedded throughout the school. Work in books show that there are regular opportunities for all children to reason which is enabling them to verbalise their learning and apply mathematical skills in different contexts.

The use of the Tackling Tables schemes have been monitored through analysis of results and lesson drop ins. Areas for improvement to increase effectiveness have been identified and put in place. These will be monitored again during the summer term. An increasing number of pupils are now working at the age related phase with times tables and related division facts. Progress in year 3 has been less rapid and additional actions have been identified to improve progress this term. Year 2 symphony data was moderated internally to ensure assessments were as accurate as possible because of the long term illness of a member of the teaching team

progress	Cohort	class A	Class B	boys	girls	PP	Non PP	EAL	SEND	Non send
y1	4	4.1	3.9	4.11	3.9	4	4	4.1	3.92	4.02
y2	4.18	4.23	4.13	4	4.39	5	4.08	4.32	3.78	4.28
y3	3.36	3.86	2.86	3.6	3.19	3.07	3.54	3.27	2.9	3.52
y4	4.25	4.33	4.15	4.27	4.23	4.32	4.22	4.31	4.18	4.28
y5	3.93	3.96	3.89	3.88	4	3.79	3.98	4.1	3.55	4.02
y6	4	3.95	4.05	4.3	3.63	3.67	4.13	4.52	3.08	4.41

Children with SEND are not making progress at the same rate as their peers.

In 3 year groups, girls are making less progress than boys.

In 3 year groups pupil premium children are making less progress than their peers.

July 2018

Reception:

The target for exp+ in number has been exceeded (62% (target 60%). The target for Exceeding was not met (2% (target 5%)).

End of KS1

<b>KS1 Mathematics EXS+ over time:</b>							
	2015	2016	2017	2018 Target	2018 Actual	FFT	FFT VA
Maths	69%	69%	67%	68%	44/60 73%	FFT50 60% FFT20 68%	+1.9

The end of key stage 1 teacher assessments show a marked increase in the number of children working at expected or higher. The results are higher than both FFT50 and FFT20. The teacher assessments have been moderated both internally and with other schools.

7% were judged to be working at greater depth which is just below the target of 10%

Conversion Emerging to Expected: 60% The FFT value added was +1.9.

EXP to WTS – 6 children , These children will be targeted in year 3.

End of KS2

	2016	2017	2018 Target	2018 Actual	FFT
Maths	39%	29%	65%	52%	FFT50 67% FFT20 73%
Progress		-4.7		-2.5	

	Maths			
	<b>PROVISIONAL</b>		Ave scaled score	
	Progress score			
	Sch	Sch	Nat	
All		-2.5	99	104
Boys		-1.8	100.1	
Girls		-3.6	97.9	
Dis		-2.6	100.7	
Other		-2.5	98.1	
SEN		-0.7	93.3	
No SEN		-3.4	101.2	
PA Low		-1.7	89	
PA Mid		-3.3	99.3	
PA High		-1.3	109.1	

Attainment in Mathematics has increased rapidly and the gap to national has narrowed. The final attainment was higher than expected from the assessments completed during the academic year. The progress has also improved from the previous year and in 2018-2019 we are aiming to achieve a progress score that is closer to national.

#### Progress year 1 to year 6 – Symphony assessment

progress	Cohort	class A	Class B	boys	girls	PP	Non PP	EAL	SEND	Non send
y1	6.14	6.31	5.97	6.25	6.03	6	6.15	6.24	6	6.17
y2	5.8	6	5.6	5.63	5	6.29	5.74	5.93	5.44	5.9
y3	5.25	6.3	4.25	5.5	4.96	4.6	5.5	5.21	4.25	5.37
y4	6.16	6.17	6.14	6.18	6.13	6.16	6.15	6.18	6.06	6.2
y5	5.82	5.67	5.96	5.77	5.88	5.31	5.98	6.1	5.4	5.91
y6	6.6	6.48	6.71	6.91	6.21	6.08	6.8	7	6.15	6.79

Progress in mathematics is good in year 1,2 and 4. It is outstanding in year 6. Year 3 requires improvement. Year 3 have experienced some instability with staffing and this shows in 3B. In year 5, pupils with SEND and pupil premium require additional support to catch up and will need to make accelerated progress in the next academic year.

Year 3 have had additional support and as a consequence have had an additional focus on arithmetic. This shows in the improvement in their summative assessment.

#### Summative end of year assessments using PiXL tests.

Mathematics	Average score			Total (110)	Pupils at 56+
	Paper 1 (40)	Paper 2 (35)	Paper 3 (35)		
3	20	14	12	45	37% (21)
4	19	12	12	43	29% (17)
5	21	12	12	44	34%

	Paper 1		Paper 2		Paper 3	
	PiXL national	Victoria	PiXL national	Victoria	PiXL national	Victoria
Year 3	18	20	14	14	12	12
Year 4	24	19	13	12	12	15
Year 5	24	21	14	12	14	12

#### Tackling Tables

September 2017 baseline

Year	Blue	Green	Red	Achieved red

3	100%	0%	0%	
4	98%	2%	0%	
5	97%	3%	0%	
6	86%	9%	5%	

The baseline showed that the vast majority of pupils were not fluent in dividing and multiplying at an age appropriate level (highlighted green). During the academic year, the pupils have practised daily using tackling tables cards. Each week they have completed a beat your best score quiz. Each half term, all pupils complete the mixed quiz for their phase. These results are tracked and analysed. The data is used to identify year groups and teachers who need additional support.

July 2018

Year	Blue	Green	Red	Achieved red	Average class A	Average class B
2	95%	5%			48	53
3	74%	21%	5%	0%	81	77
4	53%	22%	16%	7%	126	137
5	19%	47%	14%	11%	152	171
6	14%	37%	9%	40%	219	215

An increasing number of children are now working at an age appropriate level (highlighted green). Progress has been particularly strong in year 6. During the summer, pupils have been invited to take part in a times table competition using the PiXL times table app to ensure that their skills are kept up. End of year assessments will be used to identify key pupils who need additional support to achieve age related.

### Summary:

The introduction of the White Rose materials have been successful in supporting teachers in using small steps to build up mathematical skills and understanding in their planning.. Evidence from monitoring has shown that there is a wider and more effective use of concrete apparatus and models which are enabling pupils to make connections and links in their understanding of the mathematical concept being taught. Monitoring shows that the White Rose assessment materials have been used to pinpoint gaps in understanding and teachers are becoming more confident in using these effectively. Foundation skills have been a focus, particularly in year 3 and 5 which has resulted in pupils being more confident. This is evidenced by the results of the PiXL assessments which show improved results on the arithmetic paper (year 3 +7, year 4 +1.2, year 5 +6)